

RAW SEQUENCE LISTING

DATE: 08/22/2001

PATENT APPLICATION: US/09/304,967A

TIME: 13:13:38

Input Set : A:\04646-1.app

Output Set: N:\CRF3\08222001\I304967A.raw

3 <110> APPLICANT: Lomonossoff, George P.
4 Johnson, John E.
5 Bendig, Mary
6 Jones, Tim
7 Longstaff, Marian
9 <120> TITLE OF INVENTION: Modified Plant Viruses as Vectors of Heterologous
10 Peptides
12 <130> FILE REFERENCE: DOW-04646
14 <140> CURRENT APPLICATION NUMBER: 09/304,967A
15 <141> CURRENT FILING DATE: 1999-05-05
17 <150> PRIOR APPLICATION NUMBER: 08/471,048
18 <151> PRIOR FILING DATE: 1995-06-06
20 <150> PRIOR APPLICATION NUMBER: 08/612,858
21 <151> PRIOR FILING DATE: 1996-03-12
23 <150> PRIOR APPLICATION NUMBER: 08/137,032
24 <151> PRIOR FILING DATE: 1993-03-18
26 <150> PRIOR APPLICATION NUMBER: PCT/GB20/00589
27 <151> PRIOR FILING DATE: 1992-04-02
29 <160> NUMBER OF SEQ ID NOS: 123
31 <170> SOFTWARE: PatentIn Ver. 2.0
33 <210> SEQ ID NO: 1
34 <211> LENGTH: 120
35 <212> TYPE: DNA
36 <213> ORGANISM: Cowpea mosaic virus
38 <400> SEQUENCE: 1
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40 cctgtcccat tttcagacgt tacagcagta acttttgact taatcaacg caaaataact 120
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43 <211> LENGTH: 40
44 <212> TYPE: PRT
45 <213> ORGANISM: Cowpea mosaic virus
47 <400> SEQUENCE: 2
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49 1 5 10 15
51 Ala Ser Thr Pro Pro Ala Pro Phe Ser Asp Val Thr Ala Val Thr Phe
52 20 25 30
54 Asp Leu Ile Asn Gly Lys Ile Thr
55 35 40
58 <210> SEQ ID NO: 3
59 <211> LENGTH: 27
60 <212> TYPE: PRT
61 <213> ORGANISM: Foot-and-mouth disease virus
63 <400> SEQUENCE: 3
64 Ser Thr Tyr Ser Arg Asn Ala Val Pro Asn Leu Arg Gly Asp Leu Gln
65 1 5 10 15
67 Val Leu Ala Gln Lys Val Ala Arg Thr Leu Pro
68 20 25

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71 <210> SEQ ID NO: 4
72 <211> LENGTH: 81
73 <212> TYPE: DNA
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76 <400> SEQUENCE: 4
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78 aaaaggttgc tcggactctt c 81
80 <210> SEQ ID NO: 5
81 <211> LENGTH: 81
82 <212> TYPE: DNA
83 <213> ORGANISM: Foot-and-mouth disease virus
85 <400> SEQUENCE: 5
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87 ccaacgagcc tgagaaggat c 81
89 <210> SEQ ID NO: 6
90 <211> LENGTH: 52
91 <212> TYPE: PRT
92 <213> ORGANISM: Foot-and-mouth disease virus
94 <400> SEQUENCE: 6
95 Gly Pro Val Cys Ala Glu Ala Ser Asp Val Tyr Ser Pro Cys Met Ile
96 1 5 10 15
98 Ala Ser Thr Tyr Ser Arg Asn Ala Val Pro Asn Leu Arg Gly Asp Leu
99 20 25 30
101 Gln Val Leu Ala Gln Lys Val Ala Arg Thr Leu Pro Ser Thr Pro Pro
102 35 40 45
104 Ala Pro Phe Ser
105 50
108 <210> SEQ ID NO: 7
109 <211> LENGTH: 156
110 <212> TYPE: DNA
111 <213> ORGANISM: Foot-and-mouth disease virus
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115 agtagaaatg ctgttcctaa tttgagagga gatcttcaag ttttggtcct aaaggttgct 120
116 cggactcttc ctagactcc tcctgctcca ttttca 156
118 <210> SEQ ID NO: 8
119 <211> LENGTH: 52
120 <212> TYPE: PRT
121 <213> ORGANISM: Foot-and-mouth disease virus
123 <400> SEQUENCE: 8
124 Tyr Ser Pro Cys Met Ile Ala Ser Thr Tyr Ser Arg Asn Ala Val Pro
125 1 5 10 15
127 Asn Leu Arg Gly Asp Leu Gln Val Leu Ala Gln Lys Val Ala Arg Thr
128 20 25 30
130 Leu Pro Ser Thr Pro Pro Ala Pro Phe Ser Asp Val Thr Ala Val Thr
131 35 40 45
133 Phe Asp Leu Ile
134 50
137 <210> SEQ ID NO: 9

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138 <211> LENGTH: 156
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144 gatcttcaag ttttggtca aaagggtgct cggactcttc ctgactcc tcctgctcca 120
145 ttttcagacg ttacagcagt aacttttgac ttaatc 156
147 <210> SEQ ID NO: 10
148 <211> LENGTH: 156
149 <212> TYPE: DNA
150 <213> ORGANISM: Foot-and-mouth disease virus
152 <400> SEQUENCE: 10
153 atatcgggta catactatcg atcgtgaata tcactctttac gacaaggatt aaactctcct 60
154 ctagaagttc aaaaccgagt tttccaacga gcctgagaag gatcgtgagg aggacgaggt 120
155 aaaagtctgc aatgtcgtca ttgaaaactg aattag 156
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158 <211> LENGTH: 23
159 <212> TYPE: PRT
160 <213> ORGANISM: Artificial Sequence
162 <220> FEATURE:
163 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
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167 1 5 10 15
169 Ala Val Thr Phe Asp Leu Ile
170 20
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174 <211> LENGTH: 69
175 <212> TYPE: DNA
176 <213> ORGANISM: Artificial Sequence
178 <220> FEATURE:
179 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
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183 gacttaatc 69
185 <210> SEQ ID NO: 13
186 <211> LENGTH: 69
187 <212> TYPE: DNA
188 <213> ORGANISM: Artificial Sequence
190 <220> FEATURE:
191 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
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195 gacttaatc 69
197 <210> SEQ ID NO: 14
198 <211> LENGTH: 21
199 <212> TYPE: PRT
200 <213> ORGANISM: Artificial Sequence
202 <220> FEATURE:

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203 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
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 206 Ser Thr Asp Arg Pro Glu Gly Ile Glu Glu Glu Gly Gly Glu Arg Asp
 207 1 5 10 15
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 210 20
 213 <210> SEQ ID NO: 15
 214 <211> LENGTH: 67
 215 <212> TYPE: DNA
 216 <213> ORGANISM: Artificial Sequence
 218 <220> FEATURE:
 219 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
 221 <400> SEQUENCE: 15
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 223 cggacgt 67
 225 <210> SEQ ID NO: 16
 226 <211> LENGTH: 59
 227 <212> TYPE: DNA
 228 <213> ORGANISM: Artificial Sequence
 230 <220> FEATURE:
 231 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
 233 <400> SEQUENCE: 16
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 244 <400> SEQUENCE: 17
 245 Gly Pro Val Cys Ala Glu Ala Ser Asp Val Tyr Ser Pro Cys Met Ile
 246 1 5 10 15
 248 Ala Ser Thr Asp Arg Pro Glu Gly Ile Glu Glu Glu Gly Gly Glu Arg
 249 20 25 30
 251 Asp Arg Asp Arg Ser Asp Val Thr Ala Val Thr Phe Asp Leu Ile
 252 35 40 45
 255 <210> SEQ ID NO: 18
 256 <211> LENGTH: 141
 257 <212> TYPE: DNA
 258 <213> ORGANISM: Artificial Sequence
 260 <220> FEATURE:
 261 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
 263 <400> SEQUENCE: 18
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 265 cgccctgagg gcatcgagg agagggcgg gagcgcgatc gtgatcgttc ggacgtcaca 120
 266 gcagtaactt ttgacttaat c 141
 268 <210> SEQ ID NO: 19
 269 <211> LENGTH: 16
 270 <212> TYPE: PRT

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271 <213> ORGANISM: Artificial Sequence
273 <220> FEATURE:
274 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
276 <400> SEQUENCE: 19
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283 <212> TYPE: DNA
284 <213> ORGANISM: Artificial Sequence
286 <220> FEATURE:
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289 <400> SEQUENCE: 20
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292 <210> SEQ ID NO: 21
293 <211> LENGTH: 44
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295 <213> ORGANISM: Artificial Sequence
297 <220> FEATURE:
298 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
300 <400> SEQUENCE: 21
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304 <211> LENGTH: 42
305 <212> TYPE: PRT
306 <213> ORGANISM: Artificial Sequence
308 <220> FEATURE:
309 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
311 <400> SEQUENCE: 22
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316           20           25           30
318 Asp Val Thr Ala Val Thr Phe Asp Leu Ile
319           35           40
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323 <211> LENGTH: 126
324 <212> TYPE: DNA
325 <213> ORGANISM: Artificial Sequence
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332 gctactggaa tcgataatca tagagaagct aaattggacg tcacagcagt aacttttgac 120
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335 <210> SEQ ID NO: 24
336 <211> LENGTH: 39
337 <212> TYPE: PRT
338 <213> ORGANISM: Foot-and-mouth disease virus

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VERIFICATION SUMMARY

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